ELSEVIER

Journal of Geochemical Exploration 58 (1997) 331–332

JOURNAL OF GEOCHEMICAL EXPLORATION

Contents Volume 58 (1997)

Special Issue

GEOCHEMICAL EXPLORATION 1995, II

Edited by

Graham F. Taylor and **Richard Davy**

Gold in vegetation and soil — three case studies from the goldfields of southern Western Australia
M.J. Lintern, C.R.M. Butt and K.M. Scott 1
Characteristics of magnetic and non-magnetic lag in the Cobar area, NSW
S. Alipour, D.R. Cohen and A.C. Dunlop 15
Educating explorationists in a regolith dominated continent
G. Taylor 29
The role of biogeochemical processes in minimising uranium dispersion from a mine site
B.N. Noller, R.A. Watters and P.H. Woods 37
The suitability of floodplain sediment as a global sampling medium: evidence from China
X. Xie and H. Cheng 51
Nanoscale metals in Earthgas and mobile forms of metals in overburden in wide-spaced regional exploration for giant deposits in overburden terrains
X. Wang, Z. Cheng, Y. Lu, L. Xu and X. Xie. 63
Advances in energy-dispersive X-ray fluorescence
U. Kramar 73
200 years of mining activities at La Paz/San Luis Potosí/Mexico — Consequences for environment and geochemical exploration
J. Castro-Larragoitia, U. Kramar and H. Puchelt 81

Special Issue

MINING AND METALS IN THE ENVIRONMENT

Edited by

R.J. Allan and **W. Salomons**

Preface 93
Introduction: Mining and metals in the environment
R. Allan. 95
The role of fluvial geomorphic processes in the dispersal of heavy metals from mine sites
J.R. Miller 101
Mechanisms of physico-chemical interaction of mercury with river sediments from a gold mining region in Brazil: Relative mobility of mercury species
R. Melamed, R.C. Villas Bôas, G.O. Gonçalves and E.C. Paiva 119
Mercury in the Idrijca River sediments as a reflection of mining and smelting activities of the Idrija mercury mine
M. Gosar, S. Pirc and M. Bidovec 125

Heavy metals in stream sediments from copper and gold mining areas in southern Brazil
M.H.D. Pestana, M.L.L. Formoso and E.C. Teixeira 133
Variations in hydrochemistry, trace metal concentration and transport during a rain storm event in a small catchment
P. Sandén, S. Karlsson, A. Düker, A. Ledin and L. Lundman 145
Dispersion of tailings in the Knabeåna–Kvina drainage basin, Norway, 1: evaluation of overbank sediments as sampling medium for regional geochemical mapping
M. Langedal 157
Dispersion of tailings in the Knabeåna–Kvina drainage basin, Norway, 2: mobility of Cu and Mo in tailings-derived fluvial sediments
M. Langedal 173
Mobility of heavy metals as a function of pH of samples from an overbank sediment profile contaminated by mining activities
H.-E. Gäbler 185
Influences on the extent and record of heavy metal pollution in sediment cores from Loch Tay in a mineralised area of Scotland
J.G. Farmer, A.B. MacKenzie, L.J. Eades, A. Kirika and A.E. Bailey-Watts 195
Heavy metal monitoring in contaminated river systems using Mayfly larvae
T.E. Sjøbakk, B. Almli and E. Steinnes 203
Mercury exposure through fish consumption in the urban area of Alta Floresta in the Amazon Basin
S. Hacon, E.R.R. Rochedo, R.R.R. Campos and L.D. Lacerda 209
The mercury problem in the Amazon due to gold extraction
R.C. Villas Bôas 217
Anthropogenic mercury emissions to the atmosphere in Brazil: The impact of gold mining
L.D. Lacerda and R.V. Marins 223
Mercury pollution in two gold mining areas of the Brazilian Amazon
S. Rodrigues Filho and J.E.L. Maddock 231
Heavy metals speciation analysis as a tool for studying mine tailings weathering
L. Fanfani, P. Zuddas and A. Chessa 241
Mineralogy and weathering processes in historical smelting slags and their effect on the mobilisation of lead
C. Gee, M.H. Ramsey, J. Maskall and I. Thornton 249
Mercury mobility at the Carson River Superfund Site, west-central Nevada, USA: interpretation of mercury speciation data in mill tailings, soils, and sediments
P.J. Lechler, J.R. Miller, L.-C. Hsu and M.O. Desilets 259
Regional patterns of heavy metals (Co, Cr, Cu, Fe, Ni, Pb, V and Zn) and sulphur in terrestrial moss samples as indication of airborne pollution in a 188,000 km^2 area in northern Finland, Norway and Russia
M. Äyräs, H. Niskavaara, I. Bogatyrev, V. Chekushin, V. Pavlov, P. de Caritat, J.H. Halleraker, T.E. Finne, G. Kashulina and C. Reimann 269
Anthropogenic noble-metal enrichment of topsoil in the Monchegorsk area, Kola Peninsula, northwest Russia
R. Boyd, H. Niskavaara, E. Kontas, V. Chekushin, V. Pavlov, M. Often and C. Reimann 283
Distribution of cadmium, copper and zinc emitted from a swedish copperworks, 1750–1900
M. Eklund and K. Håkansson 291
Copper geochemistry and availability in cultivated soils contaminated by a copper smelter
W. Grzebisz, W.Z. Kocialkowski and B. Chudzinski 301
Duration of soil cadmium and lead pollution from shale-based alum production
B. Bergbäck, M. Eklund, U. Lohm and J. Svidén 309
Impact of soils amended with Zn and Pb smelter dust on Cd concentrations in potatoes
M. Piotrowska and A. Kabata-Pendias. 319
Persistence of metal stress in a forested ecosystem near Sudbury, 66 years after closure of the O'Donnell roast bed
T.C. Hutchinson and M.S. Symington 323